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56. (Added) An illumination assembly comprising;

a. a light guide having an output end and an input end, the input end being adapted for connection to a remote illumination source;

b. a housing having a light guide opening and an illumination opening,
5 the output end of the light guide extending within the housing and being aligned to illuminate the illumination opening;

c. only a single optical element, the single optical element being mounted within the housing; and

d. attachment means for removably attaching the housing to the

10 headgear

REMARKS

Amendment to the Specification

Applicants have amended the specification to reflect the changes made in the Certificate of Correction filed in the parent case, U.S. Patent No. 5,667,291.

Reissue Applications: Litigation Information

With respect to Applicants obligation under 37 C.F.R. §1.56 to timely apprise the office of any litigation information involving Patent No. 5,667,291, Applicants filed a Submission of Materials under MPEP 2001.06(c) on June 6.

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Acknowledgment of Allowable Claims

Applicants acknowledge with appreciation the Examiner's indication that Claims 1-20, 22, 24-27, 34 and 36-53 are allowed. Claim 21 has merely been objected to for the informality of the word "lights" properly being amended to the word "light".

Rejection of Claims 23, 28/23, 29/28/23, 31/23 and 32/31/23

The Examiner rejects the above-referenced claims under 35 U.S.C. §103(a) as being unpatentable over Li et al., in view of Kloots (4,104,709). Although the Examiner admits that Li et al. uses a single optical fiber instead of a bundle of optical fibers, the Examiner apparently contends that this deficiency is cured by Kloots teaching of the use of a fiberoptic bundle in a fiberoptic head lamp for the purpose of increasing the amount of light available from the head lamp. The Examiner concludes that it would have been obvious to one of ordinary skill in the art to substitute a fiberoptic bundle for Li et al.'s. single optical fiber for the purpose of increasing the head lamps available light. The Examiner further contends that with respect to Claims 28/23, 29/28/23, 31/23 and 32/31/23, Figure 1(d) of Li et al. teaches that an illumination assembly can be attached to surgical glasses by a pivotally mounted clip. Applicants respectfully traverse the Examiner's rejection of claims for the reasons as set forth below.

The Kloots '709 patent describes an illumination device which provides a continuously variable spot size. Several optical elements are required in order to produce a properly sized, well-defined, uniform spot. Such optical elements must generally be made of heavy, high-grade refractive

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glass to decrease their size and increase their optical quality, and as such the optical elements in such devices comprise a substantial percentage of the illumination assemblies overall weight.

Li et al. specifies that the surgical illumination system thereof comprise a “single” fiberoptic delivery light guide. (See e.g., column 5, lines 60-64; column 6, lines 38-68). Li et al specifically directs one of skill in the art to select a single core optical fiber having particular diameters, claddings, etc. Li et al. direct one of skill in the art “to utilize in the present invention fiberoptics having a diameter not larger than 1.0mm since optical fibers having larger diameters transmit a greater amount of light, but have a lower flexibility which decreases by the cube of the radius of the fiber.” (Column 6, lines 55-60). Li et al. can be viewed as a teaching away of the use of any fiber or fibers having a combined diameter of more than 1.0 millimeters, given the inflexibility of such a fiberoptic element. Although Li et al. indicates that fiberoptic bundle delivery cables can be utilized, they are only to be used “as long as the optical fibers of the bundle are few in number and each of the fibers comprises a small diameter.” (Column 7, lines 21-28).

Applicants contend that Li et al. directly teach away from the use of fiberoptic bundles and direct one of skill in the art to use single fiber delivery light guides because they are “significantly lighter than the fiber bundles” used in the prior art for transmitting light from the source to the illumination system. Thus, Applicants believe the Examiner's attempt to combine Kloots '709 with Li et al. is improper given the contrary teachings and suggestions contained therein (e.g., Li et al. stress the need for a significantly lighter light guide than is possible using prior art (i.e., Kloots). fiber optic bundles). The 1995 patent to Li et al. essentially directs one of skill in the art away from the

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use of fiber optic bundles as taught by the prior art - which Applicants contend includes the 1978 Kloots '709 patent. The Examiner cannot simply ignore this explicit teaching away.

Applicants submit that obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggesting supporting the combination. ACS Hospital Systems v. Montofiore Hospital, 221 USPQ 929, 933 (Fed.Cir. 1974). It is well established that an evaluation of the obviousness or non-obviousness of claims must not be made with the benefit of hindsight using the present application as a blueprint to reconstruct the claimed invention from the references. See Interconnect Planning Corporation v. Feil, 227 USPQ 543 (Fed.Cir. 1985). To draw on hindsight knowledge of the patented invention, when the prior art does not contain or suggest that knowledge, is to use the invention as a template for its own reconstruction -- an illogical and inappropriate process by which to determine patentability. W.L. Gore & Assoc. v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983). "That the prior art may be modified in the manner suggested by the Examine does not make the modification obvious unless the prior art suggested the desirability of the modification." In re Fritch, 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992). The mere fact that the individual elements of the inventions are old can be found in the prior art is irrelevant. Grain Processing Corp. v. American Maize Products Co., 5 USPQ2d 1788 (Fed. Cir. 1988). It is also well established that the Examiner should not be able to pick and choose individual elements from multiple references to recreate the invention. Polaroid Corp. v. Eastman Kodak Co., 229 USPQ 561 (Fed. Cir.), *cert. denied*, 479 U.S. 850 (1996). In determining the scope and content of the prior art, and determining whether the prior art suggested the claimed invention, the references "must be read as whole and consideration must

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be given where the references diverge and teach away from the claimed invention". Akzo N.V. v. United States Int'l Trade Commission, 1 USPQ2d 1241 (Fed. Cir. 1986) *cert denied*. U.S. 909 (1987) (emphasis supplied); Panduit Corp. v. Dennison Mfg. Co., 1 USPQ2d 1593 (Fed. Cir.) *cert denied*, 481 U.S. 1052 (1987). Here, the 1995 Li et al. patent teaches away from the use of prior art fiber optic bundles as depicted in the 1978 Kloots '709 patent. Applicants respectfully request the Examiner's reconsideration and withdrawal of all rejections predicated upon a combination of such references.

New Claims 54 - 56.

Applicants have presented new Claims 54-56 which are substantially identical to previously numbered Claims 21, 22 and 36, however, each of such new claims eliminates the restriction/limitation of comprising an aspheric lens.

Attached hereto is a marked up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "Version With Markings to Show Changes Made."

Applicants counsel requests a courtesy of a telephone interview in the event the Examiner has any further questions or concerns regarding this case and can be reached directly at (303) 863-2977.

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Specifications:

The paragraph beginning on page 19, lines 5-11, has been replaced with the following:

Owing to the small size and light weight of the illumination assembly 20 and its use of the clip 30, the illumination assembly 20 is far more versatile than the prior art illumination assemblies. It can easily be removed and reattached to different parts of headgear if the user finds it desirable to do so. For example, if the user wishes to wear a transparent face shield or safety goggles over a pair of eyeglasses, the illumination assembly 20 can be detached from the eyeglasses and remounted on the face shield or safety goggles.

In the Claims:

Claims 21, 30, 33 and 35 have been amended as follows:

21. (Once Amended) An illumination assembly for dental and medical application comprising;

a. a lightweight, flexible light guide having an input end and an output end, the input end being adapted for connection to a remote illumination source;

5 b. a small, lightweight housing having an input end having an interior surface that defines a light guide opening and an output end having an interior surface that defines an illumination opening, the output end of the light[s] guide extending within the

light guide opening and being aligned so that light therefrom illuminates the illumination opening;

- 10 c. only a single lens mounted within the interior surface of the output end of the housing, said lens being an aspheric lens thereby providing a light source of such weight and size that it may be mounted to headgear so that an illumination beam therefrom substantially corresponds to the user's line of sight, and
- d. means for attaching the housing to the headgear.

30. (Once Amended) The illumination assembly of Claim 29 wherein [the]a binocular telescope is mounted on the eyeglasses and the attaching means is removably attached to the binocular telescope as that the housing is substantially coaxial with the line of sight of the telescope.

33. (Once Amended) The illumination assembly of Claims 21[,]or 22 [or 23] wherein-the aspheric lens has a diameter of less than 2 centimeters.

35. (Once Amended) The illumination assembly of Claims 21[,]or 22 [or 23] wherein said lens include an aspheric face and an opposing guides plane face, the lens being mounted such that said aspheric face faces [upwardly]inwardly.

The following claims have been added:

54. (Added) An illumination assembly for dental and medical application comprising:

a. a lightweight, flexible light guide having an input end and an output end, the input end being adapted for connection to a remote illumination source;

5 b. a small, lightweight housing having an input end having an interior surface that defines a light guide opening and an output end having an interior surface that defines an illumination opening, the output end of the light guide extending within the light guide opening and being aligned so that light therefrom illuminates the illumination opening;

10 c. only a single lens mounted within the interior surface of the output end of the housing, thereby providing a light source of such weight and size that it may be mounted to headgear so that an illumination beam therefrom substantially corresponds to the user's line of sight; and

d. means for attaching the housing to the headgear.

55. (Added) An illumination assembly for dental and medical applications comprising:

5 a. a lightweight, flexible fiberoptic bundle including several optical cables and having an input end and an out-put end, the input, end being adapted for connection to a remote illumination source;

b. a small, light weight housing including an input end having an interior surface that defines a light guide opening and an output end having an interior surface that defines an illumination opening, the output end of the fiberoptic bundle extending within the light guide opening and being aligned so that light therefrom illuminates the illumination opening,

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c. only a single lens mounted within the interior surface of the out-put end of the housing, thereby providing a light source of such weight and size that it may be mounted to headgear so that an illumination beam therefrom substantially corresponds to the user's line of sight; and

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d. means for attaching the housing to the headgear.

56. (Added) An illumination assembly comprising;

a. a light guide having an output end and an input end, the input end being adapted for connection to a remote illumination source;

b. a housing having a light guide opening and an illumination opening,
5 the output end of the light guide extending within the housing and being aligned illuminate the illumination opening;

c. only a single optical element, the single optical element being mounted within the housing; and

d. attachment means for removably attaching the housing to the
10 headgear.